

Claims

What is claimed is:

1. An imaging apparatus comprising:
 - a housing having a cavity;
 - a carriage and a carriage rod disposed within the cavity;
 - a cover pivotally attached to the housing;
 - a first tray movably attached to the interior housing;
 - a second tray movably attached to the interior portion of the housing,wherein the second tray and the first tray are movable between a stowed position substantially within the cavity, and a deployed position substantially outside the cavity.
2. The imaging apparatus of claim 1 wherein the second tray is attached to in the interior portion of the housing with a hinge.
3. The imaging apparatus of claim 1 wherein the first tray is attached to in the interior portion of the housing with a hinge.
4. The imaging apparatus of claim 1 wherein the second tray is attached to in the interior portion of the housing with a first hinge, and the first tray is attached to in the interior portion of the housing with a second hinge.
5. The imaging apparatus of claim 1 further comprising a link pivotally attached to the interior portion of the housing with a third hinge, wherein one of the first tray or the second tray is attached to in the interior portion of the housing with a first hinge, and the other of the first tray or the second tray is attached to in the link with a second hinge.

6. The imaging apparatus of claim 1 wherein the second tray is positioned near the first tray when the first tray and the second tray are in the deployed position.
7. The imaging apparatus of claim 1 wherein the first tray is positioned over the second tray when the second tray and the first tray are in the deployed position.
8. The imaging apparatus of claim 1 wherein one of the second tray and the first tray is positioned above the other of the second tray and the first tray when the second tray and the first tray are in the deployed position.
9. The imaging apparatus of claim 8 wherein the second tray and the first tray are positioned substantially directly over each other.
10. The imaging apparatus of claim 1 wherein the cover covers the interior portion of the housing when the second tray and the first tray are in the stowed position.
11. The imaging apparatus of claim 1 wherein the cover is movable between an open position and a closed position when the second tray and the first tray are in the deployed position.
12. The imaging apparatus of claim 1 wherein the cover is movable between an open position and a closed position when the second tray and the first tray are in the stowed position.
13. The imaging apparatus of claim 1 wherein the housing includes a first side and a second side, wherein the second tray and the first tray are both positioned on one of the first side or the second side when the second tray and the first tray are in the deployed position.

14. The imaging apparatus of claim 1 further comprising a link pivotally attached to the interior portion of the housing with a third hinge, wherein one of the second tray or the output is attached to in the interior portion of the housing with a first hinge, and the other of the second tray or the first tray is attached to the link with a second hinge and the other of the second tray or first tray further comprising a slidably engaged extension member.

15. An imaging apparatus comprising:
a housing having an interior portion;
a link pivotally attached to the interior portion of the housing;
a media tray pivotally attached to the link, the media tray movable between a stowed position within the interior portion of the housing and a deployed position outside the housing.

16. The imaging apparatus of claim 15 wherein the housing further comprises a lid for substantially covering the interior portion of the housing, the lid movable between an open position and a closed position when the media tray is in the deployed position.

17. The imaging apparatus of claim 15 wherein the housing further comprises a lid for substantially covering the interior portion of the housing, the lid movable between an open position and a closed position when the media tray is in the stowed position.

18. The imaging apparatus of claim 15 wherein the interior portion of the media tray has an opening therein for allowing access to a paper path, the media tray stowable within the opening for allowing access to the paper path when in the stowed position.

19. An imaging apparatus comprising:
a first media holding tray;

a second media holding tray;
a housing having a interior cavity portion therein;
a print engine disposed in the interior cavity; and
means for allowing movement of the first media tray and the second media tray between a deployed position where at least a portion of the first media tray and the second media tray are positioned outside the interior cavity, and a stowed position where the first media tray and the second media tray are positioned within the interior cavity of the housing.

20. The imaging apparatus of claim 19 wherein means for allowing movement of the first media tray and the second media tray further includes on at least one of the first media tray and the second media tray

a first hinge positioned near one end of the at least one of the first media tray and the second media tray and attached to interior cavity of the housing;

a second hinge for allowing a first portion of at least one of the first media tray and the second media tray to fold with respect to a second portion of the at least one of the first media tray and the second media tray; and

a slideable portion for allowing a third portion of the of the first media tray and the second media tray to slide with respect to another portion of the of the first media tray and the second media tray.

21. The imaging apparatus of claim 20 wherein means for allowing movement of the first media tray and the second media tray further includes a third hinge positioned near one end of the other of the at least one of the first media tray and the second media tray and attached to interior cavity of the housing.

22. A method for moving a first media tray and a second media tray from a stowed position to a deployed position comprising:

opening a lid that covers at least an interior cavity in a housing;

rotating a first media tray pivotally connected with the interior of the housing from a stowed position substantially within the cavity of the housing to a

deployed position where the first media tray is substantially outside the cavity of the housing;

rotating a second media tray pivotally connected with the interior of the housing from a stowed position substantially within the cavity of the housing to a deployed position where the second media tray is substantially outside the cavity of the housing;

rotating a first portion of the second media tray with respect to a second portion of the second media tray, wherein the second portion of the media tray is rotatably attached to the interior cavity of the housing near one end of the second portion and wherein the second portion is rotatably attached to the first portion of the second media tray at the other end of the second portion; and

sliding a third portion of the second media tray with respect to the second portion of the second media tray.

23. The method of claim 22 wherein the first media tray is placed below the second media tray, the method further comprising presenting media in the second media tray such that the media substantially covers the first media tray and the second media tray.

24. The method of claim 22 further comprising positioning a paper stop near the end of the second media tray.

25. The method of claim 24 wherein positioning a paper stop near the end of the second media tray includes rotating a fourth portion of the second media tray with respect to a third portion of the second media tray.

26. A media tray for a printer comprising:

a first portion having a first end and a second end, the first portion having a first hinge portion at the first end and a second hinge portion at the second end;

a second portion having a first end and a second end, the second portion having:

a third hinge portion at the first end of the second portion, the third hinge portion and the second hinge portion forming a hinge; and
a fourth hinge portion at the second end of the second portion; and
a third portion having a first end and a second end, the third portion having a fifth hinge portion at the first end, the fifth hinge portion and the fourth hinge portion forming a hinge.

27. The media tray of claim 26 wherein the third portion of the media tray is a media stop positioned at one end of the media tray.

28. The media tray of claim 26 further comprising a fourth portion that slides with respect to the third portion of the media tray.

29. The media tray of claim 28 wherein the first portion, second portion and the fourth portion of the media tray are sized to accommodate a full-sized sheet of media.

30. An imaging apparatus comprising:

a carriage disposed within an interior cavity of the imaging apparatus and movable through a length of travel within the interior cavity of the imaging apparatus;

a carriage swept volume, wherein the swept volume is the profile of the carriage extended along the length of the carriage rod a distance equal to the length of travel of the carriage; and

a media tray being at least partially disposed within the carriage swept volume.

31. The imaging apparatus of claim 30 wherein the media tray has a portion forming an exterior surface of the housing when in a stowed position.

32. The imaging apparatus of claim 30 wherein the media tray is disposed within the interior cavity when in a stowed position.

33. The imaging apparatus of claim 30 further comprising a cover pivotally attached to the housing capable of substantially covering the interior cavity.

34. An imaging apparatus comprising:
a housing having an interior cavity;
a print engine disposed within the interior cavity;
a carriage disposed within the interior cavity and movable through a length of travel within the interior cavity;
a carriage swept volume, wherein the carriage swept volume is the profile of the carriage extended along the length of the carriage rod a distance equal to the length of travel of the carriage; and
a media tray being at least partially disposed within the interior cavity and outside the carriage swept volume when in a stowed position.

35. The imaging apparatus of claim 34 further comprising a cover pivotally attached to the housing capable of substantially covering the interior cavity.

36. The imaging apparatus of claim 35 wherein the media tray has at least a portion disposed within the interior cavity of the housing and wherein the media tray also has a portion positioned between the swept volume and the cover when in a stowed position.

37. The imaging apparatus of claim 36 wherein the media tray is disposed within the interior cavity when in a stowed position.

38. The imaging apparatus of claim 34 wherein the media tray has a portion forming an exterior surface of the housing when in a stowed position.

39. A method comprising:
pivoting a lid of an imaging apparatus from a closed position to an open position to increase access to a media tray; and
rotating the media tray from a stowed position to a deployed position.
40. The method of claim 39 further comprising pivoting a lid of an imaging apparatus from the position to the closed position while the media tray is in the deployed position.
41. The method of claim 40 further comprising operating the imaging apparatus with the lid in the closed position and the media tray is in the deployed position.
42. The method of claim 41 wherein operating the imaging apparatus with the lid in the closed position and the media tray is in the deployed position includes moving media onto the media tray.
43. The method of claim 41 wherein operating the imaging apparatus with the lid in the closed position and the media tray is in the deployed position includes removing media from the media tray.